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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,152	01/12/2004	Rui Li	350078.413	3391
34554 7590 08/05/2009 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVENUE, SUITE 5400 SEATTLE, WA 98104-7092				
EXAMINER				
BAROT, BHARAT				
ART UNIT		PAPER NUMBER		
2455				
MAIL DATE		DELIVERY MODE		
08/05/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/756,152

**Applicant(s)**

LI, RUI

**Examiner**

Bharat N. Barot

**Art Unit**

2455

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 and 43-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 and 43-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**REOPEN PROSECUTION**

1. In view of the appeal brief filed on March 21, 2009, PROSECUTION IS HEREBY REOPENED. The new grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below: /saleh najjar/

Supervisory Patent Examiner, Art Unit 2455

2. Claims 1-36 and 43-52 remain for further examination.

**The new grounds of rejection**

3. Applicants' arguments with respect to claims 1-36 and 43-52 filed on March 24, 2009 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

**Claim Rejections - 35 USC § 103(a)**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 9-34, 36, 43-50, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craig et al (U.S. Patent No. 7,031,314) in view of Peiffer et al (U.S. Patent No. 7,055,028).

6. As to claim 1, Craig et al teach a method, comprising: at a network device (service module), providing a client-side connection and a server-side connection (abstract, figure 4, and column 17 lines 4-56); receiving at the network device via the client-side connection a communication that signals the server-side connection to close (figure 4, and column 17 line 57 to column 18 line 11); and maintaining, by the network device, at least the server-side connection in response to the communication received via the client-side connection (see abstract, figure 4, and column 17 line 57 to column 18 line 11, Craig et al teach that during the close state the service module responds to communication received by the client in order to close connection that closing the client-side connection and maintaining the server-side connection).

However, Craig et al do not explicitly teach that the client-side connection and server-side connection are hypertext transfer protocol (HTTP) connections; and maintaining persistent, by the network device, at least the server-side connection in response to the communication received via the client-side connection.

Peiffer et al teach a method, comprising: at a network device (networking device), providing a hypertext transfer protocol (HTTP) client-side connection and a HTTP server-side connection (abstract, figure 3, column 7 lines 39-47, and column 8 lines 8-17); and maintaining persistent, by the network device, at least the server-side connection in response to a communication received via the client-side connection (figure 7, column 9 lines 58-63, and column 10 lines 2-17 and 33-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Peiffer et al stated above in the method of Craig et al because it would have increased server-side connection security and maximized the utilization of a network server by using a one session server-side connection for the multiple sessions client-side connection.

7. As to claim 2, Peiffer et al teach that closing the client-side connection while the server-side connection is maintained persistent (figure 7, column 9 lines 58-63, and column 10 lines 2-17 and 33-57, Peiffer et al teach that periodically terminate client connection and maintain persistent connection with server).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Peiffer et al stated above in the method of Craig et al because it would have maximized the utilization of a network server by using a one session server-side connection for the multiple sessions client-side connection.

8. As to claim 3, , Craig et al teach that de-linking, by the network device, the server-side connection from the client side connection in response to a RESET (update/close) packet received by the network device via the client-side connection (figure 4, and column 17 line 57 to column 18 line 11).

9. As to claims 4-5, Craig et al teach that de-linking, by the network device, the server-side connection from the client side connection in response to a FIN packet received by the network device via the client-side connection; and closing both the client-side and server-side connections in response to a FIN packet received by the network device via the server-side connection (figure 4, and column 17 line 57 to column 18 line 11).

10. As to claims 9-10, Craig et al teach that modifying, by the network device, a header in the communication, form a format that signals the server-side connection to close to a format that is unrecognizable by a server coupled to the server-side connection, to cause the server to ignore the modifier header (figure 3A, and column 11 line 45 to column 12 line 3); and modifying the header in the request to the form that is unrecognizable to the server includes at least one of modifying a name of the header and modifying a value of the header (figure 3A, column 8 lines 1-12, and column 11 lines 11-44).

11. As to claims 11-12, Peiffer et al teach that changing, by the network device, a HTTP version value indicated in the communication to another HTTP version value that is recognizable by a server, coupled to the server-side connection, as being associated with a persistent connection; and adjusting a checksum based on a difference between the HTTP version values (column 9 lines 22-57, Peiffer et al teach that matching the HTTP request version with server-side socket).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Peiffer et al stated above in the method of Craig et al because it would have maximized the utilization of a network server by providing service to a plurality of HTTP request versions.

12. As to claim 13, Craig et al teach that the request includes a header having a proxy format (figure 5, and column 18 lines 22-42).

13. As to claim 43, Craig et al teach that the network device includes a switch (figures 3s-4); and Peiffer et al teach that the network device includes a switch (figure 3 and 9).

14. As to claim 44, , Peiffer et al teach that changing the HTTP version value to another HTTP version value includes changing, by the network device, from HTTP version 1.0 indicated in the request to HTTP version 1.1 (column 9 lines 22-57, Peiffer et al teach that matching the HTTP request version with server-side socket).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Peiffer et al stated above in the method of Craig et al because it would have maximized the utilization of a network server by providing service to a plurality of HTTP request versions.

15. As to claims 14-21 and 45, they are also rejected for the same reason set forth to rejecting claims 1-5, 9-13, and 43 above, since the claims 14-21 and 45 do not teach or define any new limitations than above claims 1-5, 9-13, and 45.



16. As to claims 22-34, 36, 46-50, and 52, they are also rejected for the same reasons set forth to rejecting claims 1-5, 9-13, and 43 above, since claims 22-34, 36, 46-50, and 52 are merely an apparatus for the method of operations defined in the method claims 1-5, 9-13, and 43.

17. Claims 6-8, 35, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craig et al (U.S. Patent No. 7,031,314) in view of Peiffer et al (U.S. Patent No. 7,055,028), as applied to the claim 1 above, and further in view of Susai et al (U.S. Patent No. 6,954,780).

18. As to claims 6-8, neither Craig et al nor Peiffer et al teach that identifying, by the network device, a Connection: Close header in the communication received via the client-side connection; replacing, by the network device, the Connection: Close header in the communication with a Connection: Keep-Alive header.

Susai et al teach that identifying, by the network device, a Connection: Close header in the communication received via the client-side connection; replacing, by the network device, the Connection: Close header in the communication with a Connection: Keep-Alive header; the network device performing at least one of increasing a total length of a packet having the Connection: Close header, fragmenting the packet having the Connection: Close header, and recalculating a checksum of the packet; and inserting, by the network device, a Connection: Keep-Alive header in the communication if the communication does not contain any header information indicative of whether to

close the HTTP connection (abstract, figures 6A-6B, column 7 lines 1-65, and column 8 lines 9-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Susai et al stated above in the method of Craig et al because it would have promoted efficient planning in the network and maximized the utilization of the network server by using different types of packets, protocol versions, and techniques.

19. As to claims 35 and 51, they are also rejected for the same reasons set forth to rejecting claim 6-8 above, since claims 35 and 51 are merely an apparatus for the method of operations defined in the method claims 6-8.

### **Response to Arguments**

20. Applicants' arguments with respect to claims 1-36 and 43-52 filed on March 24, 2009 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

21. Applicant's arguments have been fully considered. The examiner has attempted to answer (response) to the remarks (arguments) in the body of the Office action.

**Additional References**

22. The examiner as of general interest cites the following references.
- a. Petry et al, U.S. Patent No. 7,539,760.
  - b. Siegel, U.S. Patent No. 7,87,250.
  - c. Desai, U.S. Patent No. 7,161,947.

**Contact Information**

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bharat Barot** whose Telephone Number is **(571) 272-3979**. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number **(571) 273-8300**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Saleh Najjar**, can be reached at **(571) 272-4006**.

/Bharat N Barot/

Primary Examiner, Art Unit 2455

July 30, 2009